REMARKS

Claims 1-16 are pending in the present application. Claim 16 has been added.

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

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Attachments

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT OF THE DISCLOSURE:

The Abstract of the Disclosure has been amended as follows:

DESCRIPTIVE ABSTRACT

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PROCESS FOR THE PRODUCTION OF FOODSTUFF SMOKE BY PYROLYSIS, USE OF A REACTOR PARTICULARLY ADAPTED TO SAID PROCESS, SMOKE AND SMOKED FOODSTUFFS THUS OBTAINED

~~The present invention relates to the field of~~Process for the production of ~~smoke for food processing usage and has for its object a process characterized in that it comprises essentially the steps consisting in~~foodstuff smoke by pyrolysis comprises introducing the organic material to be pyrolyzed into a reactor ~~comprising essentially a heatable chamber that is~~having a substantially ~~sealed,~~ sealed heatable chamber containing at least one ascending tubular element that is vibrated and receiving ~~said~~the material, at the level of the lower portion of ~~said tubular element, heating said~~the tubular element; heating the organic material to a temperature comprised between 200°C and 800°C~~, preferably between 300°C and 400°C,~~ so as to cause pyrolysis during its movement, under the influence of vibrations, in the ascending tubular element or ~~elements,~~elements; and extracting the consumed material and the produced smoke at the level of the upper portion of ~~said tubular element or~~ the tubular element.

~~elements.~~

IN THE CLAIMS:

The claims have been amended as follows:

3. Process according to claim 1~~ or 2~~, characterized in that the organic material is dried by preheating before it being pyrolyzed, preferably in at least one specific preheating zone provided in the tubular element or elements and more preferably by electrical heating of said zone or zones by the Joule effect.

4. Process according to ~~any one of claims 1 to 3,~~claim 1, characterized in that the smoke produced is condensed at the outlet of the reactor in a suitable condensation device.

5. Process according to ~~any one of claims 1 to 4,~~claim 1, characterized in that at least one portion of the pyrolysis gas present at the outlet of the condensation device is re-injected into the reactor.

6. Process according to ~~any one of claims 1 to 5,~~claim 1, characterized in that pyrolysis takes place under strict control, to about 0.1%, of the volume content of oxygen in said reactor.

7. Process according to ~~any one of claims 1 to 6,~~claim 1, characterized in that pyrolysis takes place under precise control, to about one degree Celcius, of the temperature prevailing in said reactor.

8. Process according to ~~any one of claims 1 to 7,~~claim 1, characterized in that the pyrolyzed organic material is essentially constituted by woodchips, in particular wood suitable for flavoring or aging of wine and/or spirits.

9. Process according to ~~any one of claims 1 to 7,~~claim 1, characterized in that the pyrolyzed organic material is essentially constituted by fibers or chips of at least one vegetable substance such as wood, cellulose, any other polysaccharide or complex ligno-cellulose.

10. The use of a vibrated elevating reactor for the practice of the process according to the invention of ~~claims 1 to 9,~~claim 1, of the type comprising essentially a heatable chamber substantially sealed, containing at least one ascending tubular element that is vibrated and receiving an organic material to be pyrolyzed, for the production of smoke adapted for smoking foodstuffs.

13. Smoke adapted for smoking foodstuffs obtained by the process according to ~~any one of claims 1 to 9,~~claim 1, characterized in that it has, once condensed into liquid smoke, a volume content of benzo[a]pyrene of at most 10 ppb and a volume content of benzoanthracene of at most 20 ppb.

15. Foodstuff smoked by the use of smoke according to claim 13~~ and/or a liquid smoke according to claim 14~~.

DESCRIPTIVE ABSTRACT

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PROCESS FOR THE PRODUCTION OF FOODSTUFF SMOKE BY PYROLYSIS, USE OF A REACTOR PARTICULARLY ADAPTED TO SAID PROCESS, SMOKE AND SMOKED FOODSTUFFS THUS OBTAINED

Process for the production of foodstuff smoke by pyrolysis comprises introducing the organic material to be pyrolyzed into a reactor having a substantially sealed heatable chamber containing at least one ascending tubular element that is vibrated and receiving the material, at the level of the lower portion of the tubular element; heating the organic material to a temperature comprised between 200°C and 800°C so as to cause pyrolysis during its movement, under the influence of vibrations, in the ascending tubular element or elements; and extracting the consumed material and the produced smoke at the level of the upper portion of the tubular element.